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May 15, 2006

Via facsimile
571-273-6500Commissioner for Patents and Trademarks
Deposit Accounts
Mail Stop 16
PO Box 1450
Alexandria, VA 22313-1450

ATTN: Latrice Sims

RE: Refund to Deposit Account No. 200095
Our file ref: LII0585.US/2002-0168.01, Serial No. 10/612,792

Dear Ms. Sims:

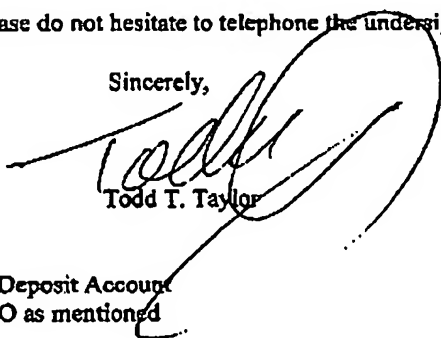
Enclosed herewith please find a copy of the monthly Statement of Deposit Account dated April 2006.

As shown on the attached Monthly Statement of Deposit Account, Deposit Account No. 200095 was debited a total amount of \$120.00 in association with U.S. Patent Serial No. 10/612,792. In particular, the Monthly Statement of Deposit Account indicated that the total amount of \$120.00 for an Extension of Time within the one month was not included. However, on April 10, 2006 an Amendment was submitted within the 3 month period. (Office Action dated January 13, 2006 with a response time set to expire on April 13, 2006.) Copies of these documents are enclosed for your review. Thus, it is requested that the \$120.00 taken out of the deposit account on April 28, 2006, for the extension of time be refunded.

Accordingly, it is respectfully requested that Deposit Account No. 200095 be credited in the amount of \$120.00 for this error.

If you have any questions, please do not hesitate to telephone the undersigned.

Sincerely,


Todd T. Taylor

TTT/mb

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Document filed with the USPTO as mentionedINDIANAPOLIS OFFICE:
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FACSIMILE COVER LETTER

May 15, 2006

To: Latrice Sims (571-273-6500)

Company: Deposit Accounts, U.S. Patent and Trademark Office

From: Todd T. Taylor

RE: Refund to Deposit Account No. 200095

Our ref: LII0585.US/2002-0168.01. Serial No. 10/612,792

Comments:

Total number of pages, including this page: 25

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Account No.	200095
Date	4-28-06
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DATE POSTED			CONTROL NO.	DESCRIPTION (Serial, Patent, TM, Order)	DOCKET NO.	FEE CODE	CHARGES/ CREDITS	BALANCE
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4	7	06	31	10165237	POL0047.US	2202	-250.00	1566.00
4	18	06	93	10712608	V010284.US	1252	450.00	1116.00
4	18	06	238	11403441	CU10015.US	8021	40.00	1076.00
4	24	06	2	10691247	V010277.US	1251	120.00	956.00
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APPLICATION NO.	FILING DATE	INVENTOR NAME FOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10641792	07/02/2003	Adam Fede Akas	2002-0168.01	5453

3172 1510 01/13/2006

LEXMARK INTERNATIONAL, INC.
INTELLECTUAL PROPERTY LAW DEPARTMENT
740 WEST NEW CIRCLE ROAD
BLDG. 082-1
LEXINGTON, KY 40550-0999

EXAMINER

GHATT, DAVE A

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

FTO-90C (Rev. 10/03)

PAGE 4/24 * RCVD AT 5/15/2006 3:22:09 PM [Eastern Daylight Time] * SVR:USPTO-EFXXRF-1/20 * DNIS:2736500 * CSID:260 897 9300 * DURATION (mm-ss):06-34

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Office Action Summary		Application No.	Applicant(s)	
		10612,782	AHNE ET AL.	
		Examiner	Art Unit	
		Dave A. Ghod	2854	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.204(b).

Status

1) ☒ Responsive to communication(s) filed on 04 November 2005.

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-71 is/are pending in the application.

4a) Of the above claim(s) 1-48 and 65-71 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 48-51, 53 and 54 is/are rejected.

7) ☒ Claim(s) 52 and 55 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1) ☐ Certified copies of the priority documents have been received.

2) ☐ Certified copies of the priority documents have been received in Application No. _____.

3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-894)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-848)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO-SB43)
Paper No./Mail Date 1002, 2/05, A/G2.

4) ☐ Interview Summary (PTO-613)
Paper No./Mail Date _____.

5) ☐ Notice of Informal Patent Application (PTO-153)
6) ☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 7-05)

Office Action Summary

Part of Paper No./Mail Date 20060104

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PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
Adam Jude Ahne, et al.) Group: 2854
Serial No.: 10/612,792)
Filed: July 2, 2003)
Title: PERFORATION FORMING MECHANISM FOR) Examiner: D. Gharr
USE IN AN IMAGING APPARTUS)

AMENDMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the Office Action dated January 13, 2006, Applicants hereby submit the following Amendment.

The following amendment papers are included herewith:

<u>Amendment Papers</u>	<u>Page #</u>
AMENDMENT(S) TO THE CLAIMS	2
REMARKS	13

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AMENDMENT(S) TO THE CLAIMS

1. (Withdrawn) An apparatus for perforating a sheet of media having a front side and a back side, comprising:

- a perforation forming mechanism including at least one perforation device, said perforation forming mechanism being configured to drive said at least one perforation device
5 through said sheet of media to extend through said sheet of media by a distance; and
a controller coupled to said perforation forming mechanism, said controller being configured to select said distance.

2. (Withdrawn) The apparatus of claim 1, further comprising a mid-frame for supporting said back side of said sheet of media, said mid-frame including a trough for receiving said perforation device after said perforation device passes through said sheet of media.

3. (Withdrawn) The apparatus of claim 2, further comprising a foam positioned in said trough.

4. (Withdrawn) The apparatus of claim 3, wherein said foam fills said trough, said foam supporting said back side of said sheet of media at said trough.

5. (Withdrawn) The apparatus of claim 1, wherein said perforation forming mechanism includes multiple perforation devices.

6. (Withdrawn) The apparatus of claim 1, wherein said controller selects said distance to create Braille indicia on said sheet of media.

7. (Withdrawn) The apparatus of claim 1, wherein said at least one perforation device includes a needle having a taper, wherein said distance that said needle extends through said sheet of media effects a size of a perforation opening in said sheet of media.

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PATENT

8. (Withdrawn) The apparatus of claim 1, wherein said at least one perforation device includes at least one blade.

9. (Withdrawn) The apparatus of claim 1, further comprising a perforation maintenance station including an abrasive member for sharpening said perforation device.

10. (Withdrawn) The apparatus of claim 1, further comprising:
a mid-frame for supporting said back side of said sheet of media; and
a carrier system configured to transport a printhead carriage and a perforator carriage in a reciprocating manner with respect to said mid-frame, said perforator carriage being coupled to
5 said printhead carriage, said perforator carriage carrying said perforation forming mechanism.

11. (Withdrawn) The apparatus of claim 10, further comprising an isolation damper coupling said printhead carriage to said perforator carriage.

12. (Withdrawn) The apparatus of claim 1, further comprising:
a first roller positioned upstream of said perforation device; and
a second roller positioned downstream of said perforation device,
said sheet of media being suspended between said first roller and said second roller during
5 perforation.

13. (Withdrawn) The apparatus of claim 12, wherein said first roller is a feed roller and said second roller is an exit roller.

14. (Withdrawn) An apparatus, comprising:
a mid-frame for supporting a back side of a sheet of media;
a carrier system configured to transport a carriage in a reciprocating manner with respect to said mid-frame, said carriage including a bay; and
5 a perforation cartridge configured to be received in said bay, said perforation cartridge containing a perforation forming mechanism.

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15. (Withdrawn) The apparatus of claim 14, wherein an ink jet printhead cartridge and said perforation cartridge are configured to be interchangeable in said bay.

16. (Withdrawn) The apparatus of claim 14, wherein said carriage includes multiple bays to accommodate multiple cartridges, wherein at least one of said multiple cartridges is said perforation cartridge.

17. (Withdrawn) The apparatus of claim 14, further comprising a controller coupled to said perforation forming mechanism, said controller being configured to select at least one of a vertical perforation resolution and a horizontal perforation resolution of said apparatus.

18. (Withdrawn) The apparatus of claim 17, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a media type.

19. (Withdrawn) The apparatus of claim 17, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a media thickness.

20. (Withdrawn) The apparatus of claim 17, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a user selection.

21. (Withdrawn) A perforation cartridge configured to be received in a bay of a printer carriage, said perforation cartridge containing a perforation forming mechanism including a perforation device.

22. (Withdrawn) The perforation cartridge of claim 21, wherein said perforation forming mechanism includes multiple perforation devices.

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23. (Withdrawn) The perforation cartridge of claim 21, wherein said perforation device is one of a needle and a blade.

24. (Withdrawn) The perforation cartridge of claim 21, wherein said perforation forming mechanism comprises:

a motor having a rotatable shaft;

a flywheel coupled to said rotatable shaft; and

5 a linkage pivotally connected between said flywheel and said perforation device.

25. (Withdrawn) The perforation cartridge of claim 24, further comprising a control circuit connected to said motor for controlling an operation of said motor.

26. (Withdrawn) The perforation cartridge of claim 25, further comprising a sensor connected to said control circuit, said sensor being used to detect a position of said perforation device.

27. (Withdrawn) The perforation cartridge of claim 21, wherein said perforation forming mechanism comprises:

a motor having a rotatable shaft;

a cam coupled to said rotatable shaft; and

5 a cam follower connected to said perforation device, and positioned adjacent said cam.

28. (Withdrawn) The perforation cartridge of claim 27, wherein said perforation device is one of a needle and a blade.

29. (Withdrawn) The perforation cartridge of claim 27, further comprising a control circuit connected to said motor for controlling an operation of said motor.

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30. (Withdrawn) The perforation cartridge of claim 29, further comprising a sensor connected to said control circuit, said sensor being used to detect a position of said perforation device.

31. (Withdrawn) The perforation cartridge of claim 21, wherein said perforation forming mechanism comprises:
a solenoid; and
an armature received in said solenoid and connected to said perforation device.

32. (Withdrawn) The perforation cartridge of claim 31, wherein said perforation device is one of a needle and a blade.

33. (Withdrawn) The perforation cartridge of claim 31, further comprising a control circuit connected to said solenoid for controlling a position of said armature.

34. (Withdrawn) The perforation cartridge of claim 33, further comprising a sensor connected to said control circuit, said sensor being used to detect a position of said perforation device.

35. (Withdrawn) An apparatus for perforating a sheet of print media having a front side and a back side, comprising:

- a perforation forming mechanism including at least one perforation device; and
 - a mid-frame for supporting said back side of said sheet of print media, said mid-frame
- 5 including a trough extending along a width of said mid-frame for receiving said at least one perforation device.

36. (Withdrawn) The apparatus of claim 35, further comprising a foam positioned in said trough.

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37. (Withdrawn) The apparatus of claim 36, wherein said foam fills said trough, said foam supporting said back side of said sheet of print media at said trough.

38. (Withdrawn) The apparatus of claim 35, said trough being configured with a depth such that said at least one perforation device does not contact a bottom of said trough when said at least one perforation device is at a fully extended position.

39. (Withdrawn) The apparatus of claim 38, wherein said foam is positioned to receive at least a tip portion of said at least one perforation device.

40. (Withdrawn) The apparatus of claim 35, wherein said perforation device includes at least one needle.

41. (Withdrawn) The apparatus of claim 35, wherein said perforation device includes at least one blade.

42. (Withdrawn) The apparatus of claim 35, further comprising a perforator maintenance station including an abrasive member for sharpening said perforation device.

43. (Withdrawn) The apparatus of claim 35, further comprising:
a conveyor belt arranged in said trough for carrying paper waste generated during perforation of said sheet of print media; and
a conveyor drive unit coupled to said conveyor belt for advancing said conveyor belt.

44. (Withdrawn) The apparatus of claim 35, further comprising:
a first roller positioned upstream of said perforation forming mechanism; and
a second roller positioned downstream of said perforation forming mechanism,
said sheet of print media being suspended between said first roller and said second roller
5 during perforation.

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45. (Withdrawn) The apparatus of claim 44, wherein said first roller is a feed roller and said second roller is an exit roller.

46. (Original) An apparatus for perforating a sheet of print media having a front side and a back side, comprising:

a printhead carriage for carrying a printhead;

a perforator carriage for carrying a perforation forming mechanism; and

5 an isolation damper coupling said printhead carriage to said perforator carriage.

47. (Amended) The apparatus of claim 46, further comprising a carriage drive to drive each of said printhead carriage and said perforator carriage ~~is~~ in a reciprocating manner in unison.

48. (Original) The apparatus of claim 46, wherein said perforation forming mechanism includes a perforation device, and further comprising a mid-frame positioned to support said back side of said sheet of print media, said mid-frame including a trough for receiving said perforation device after said perforation device passes through said sheet of print media.

49. (Original) The apparatus of claim 46, wherein said perforation forming mechanism includes a perforation device.

50. (Amended) The apparatus of claim 49, further comprising a perforation maintenance station including an abrasive member for sharpening said perforation device at a location outside of a perforation zone of said perforation device.

51. (Original) The apparatus of claim 49, wherein said perforation device is one of a needle and a blade.

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52. (Original) The apparatus of claim 46, further comprising a controller coupled to said perforation forming mechanism, said controller being configured to select at least one of a vertical perforation resolution and a horizontal perforation resolution of said apparatus.

53. (Original) The apparatus of claim 46, wherein said perforation forming mechanism includes multiple perforation devices.

54. (Original) The apparatus of claim 46, further comprising:
a first roller positioned upstream of said perforation forming mechanism; and
a second roller positioned downstream of said perforation forming mechanism,
said sheet of print media being suspended between said first roller and said second roller
5 during perforation.

55. (Original) The apparatus of claim 46, further comprising:
a D-shaped guide rod for guiding said printhead carriage and said perforator carriage, said
D-shaped guide rod being drivably coupled to said perforation forming mechanism;
a motor coupled to said D-shaped guide rod; and
5 a controller connected to said motor, said controller being configured to operate said
motor so as to impart a rotation to said D-shaped guide rod to drive said perforation forming
mechanism.

56. (Withdrawn) An apparatus, comprising:
a perforation forming mechanism including a perforation device for forming perforations
in a media sheet; and
a controller coupled to said perforation forming mechanism, said controller being
5 configured to select at least one of a vertical perforation resolution and a horizontal
perforation resolution of said apparatus.

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57. (Withdrawn) The apparatus of claim 56, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a media type.

58. (Withdrawn) The apparatus of claim 56, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a media thickness.

59. (Withdrawn) The apparatus of claim 56, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a user selection.

60. (Withdrawn) The apparatus of claim 56, said perforation forming mechanism being configured to drive said perforation device through said sheet of print media to extend through said sheet of print media by a distance, said distance being selectable by said controller.

61. (Withdrawn) The apparatus of claim 60, wherein said controller selects said distance to create Braille indicia on said sheet of print media.

62. (Withdrawn) An imaging apparatus, comprising:
a perforation forming mechanism including a perforation device for forming perforations in a media sheet; and

5 a controller coupled to said perforation forming mechanism, said controller being configured to control said perforation forming mechanism to create Braille indicia on said media sheet.

63. (Withdrawn) The imaging apparatus of claim 62, wherein said media sheet is a transparency sheet.

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64. (Withdrawn) An apparatus for perforating a sheet of print media having a front side and a back side, comprising:

a carrier system including a carriage and a drive unit for driving said carriage in a reciprocating manner over said sheet of print media; and

5 a perforation forming mechanism mounted to said carriage for reciprocation with said carriage, said perforation forming mechanism including at least one perforation device, said perforation forming mechanism being configured to drive said at least one perforation device through said sheet of print media to extend through said sheet of print media by a distance.

65. (Withdrawn) The apparatus of claim 64, wherein said apparatus is an ink jet printer.

66. (Withdrawn) The apparatus of claim 64, wherein said perforation device is a needle.

67. (Withdrawn) The apparatus of claim 64, further comprising:

a mid-frame for supporting said back side of said sheet of print media; and

5 said carrier system configured to transport a printhead carriage and a perforator carriage in a reciprocating manner with respect to said mid-frame, said perforator carriage being coupled to said printhead carriage, said perforator carriage carrying said perforation forming mechanism.

68. (Withdrawn) The apparatus of claim 64, further comprising a controller coupled to said perforation forming mechanism, said controller being configured to select at least one of a vertical perforation resolution and a horizontal perforation resolution of said apparatus.

69. (Withdrawn) The apparatus of claim 68, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a media type.

70. (Withdrawn) The apparatus of claim 68, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a media thickness.

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71. (Withdrawn) The apparatus of claim 68, wherein said controller selects said at least one of said vertical perforation resolution and said horizontal perforation resolution based on a user selection.

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REMARKS

Claims 1-71 are pending in the present patent application. Claims 1-45 and 56-71 were withdrawn from consideration. Claims 46-51, 53 and 54 were rejected. Claims 52 and 55 were objected to. Claims 47 and 50 have been amended. This application continues to include claims 1-71.

Applicants thank the Examiner for the indication that claims 52 and 55 contain allowable subject matter.

Claim 47 was amended to correct a minor typographical error.

Claims 46, 47, 48, 49, 51, 53, and 54 were rejected under 35 U.S.C. §102(b) as being anticipated by Matsumoto (U.S. Patent No. 4,604,632). Applicants respectfully request reconsideration of the rejection of claims 46, 47, 48, 49, 51, 53, and 54 in view of the following.

Claim 46 is directed to an apparatus for perforating a sheet of print media having a front side and a back side. Claim 46 recites, "a printhead carriage for carrying a printhead; a perforator carriage for carrying a perforation forming mechanism; and an isolation damper coupling said printhead carriage to said perforator carriage." In rejecting claim 46, the Examiner relies on pin 27 of Matsumoto as corresponding to the recited isolation damper.

As a first point, in Matsumoto there is only one carriage, identified as head mount 1 slidably attached to parallel guide shafts 2 and 3. (Column 2, lines 18-20; Fig. 1A). A recording head 26 having a plurality of recording elements 26A is rotatably mounted on the head mount 1 around a pin 27. (Column 2, lines 62-64; Fig. 1B). A perforating lever 30 is pivotably supported around pin 27, and has a perforating wheel 31 rotatably attached to a shaft 32 at an end of an upper arm 30A of the perforating lever 30. (Column 3, lines 7-10; Fig. 1B).

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As a second point, notwithstanding Matsumoto does not disclose two carriages, it is clear from the passages of Matsumoto set forth above and as shown in Matsumoto Fig. 1B that pin 27 is not positioned to couple the recording head 26 to the perforating lever 30, but rather pin 27 serves as a common pivot member to mount each of recording head 26 and perforating lever 30 individually to the carriage (head mount 1).

As a third point, nothing in Matsumoto discloses, teaches or suggests that pin 27 is an isolation damper. The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *Phillips v. AWH Corp.*, 75 USPQ2d 1321, 1329 (Fed. Cir. 2005) quoting *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827 (Fed. Cir. 2004) (Emphasis added). One looks to the specification "to ascertain the meaning of a claim term as it is used by the inventor in the context of the entirety of his invention." *Comark Communications v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998).

As stated in Applicants' specification at page 12, lines 25-28 and line 33-page 14, line 3, "Perforator carriage 134 is connected to carrier transport belt 42, and is coupled to carriage 32 by isolation members 136. Isolation members 136 may be made, for example, of rubber or other material having elastic, vibration absorbing, characteristics. [] Isolation members 136 serve as isolation dampers so that operation of the perforator mechanism in perforator carriage 134 will not transmit mechanical vibrations directly to carriage 32, and in turn to printheads 38a, 38b." (Emphasis added).

Thus, in the context of the entirety of Applicants' invention, the recited isolation damper is a device having vibration absorbing characteristics such that the perforator carriage will not

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transmit mechanical vibrations directly to the printhead carriage. However, nothing in Matsumoto would indicate that pin 27 is anything more than a common pivot member to mount each of recording head 26 and perforating lever 30 to the carriage (head mount 1).

Accordingly, in view of the above, Matsumoto does not disclose, teach or suggest "an isolation damper coupling said printhead carriage to said perforator carriage", as recited in claim 46. (Emphasis added).

Each of claims 47, 48, 49, 51, 53, and 54 depend, directly or indirectly, from claim 46, and are believed allowable in view of their respective dependence from otherwise allowable base claim 46. In addition, claims 47, 48, 49, 51, 53, and 54 further and patentably define the invention over Matsumoto.

For example, claim 54 recites, "The apparatus of claim 46, further comprising: a first roller positioned upstream of said perforation forming mechanism; and a second roller positioned downstream of said perforation forming mechanism, said sheet of print media being suspended between said first roller and said second roller during perforation." In contrast, as shown in Matsumoto Fig. 4, rollers 15A, 15B and platen 23 are arranged such that the paper 8 is held tightly against platen 23 during perforation, and thus, "said sheet of print media" is not "suspended between said first roller and said second roller during perforation", as recited in claim 54. (Emphasis added).

Accordingly, claim 54 is believed allowable in its own right.

Therefore, in view of the above, it is respectfully requested that the Examiner withdraw the rejection of claims 46, 47, 48, 49, 51, 53, and 54 as being anticipated by Matsumoto under 35 U.S.C. 102(b).

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Claims 46, 47, and 49 were rejected under 35 U.S.C. §103(a) as being unpatentable over Petersen, et al. (U.S. Patent No. 5,363,123) in view of Schmitt (U.S. Patent No. 4,564,470). Applicants respectfully request reconsideration of the rejection of claims 46, 47, and 49 in view of the following.

As set forth above, claim 46 is directed to an apparatus for perforating a sheet of print media having a front side and a back side. Claim 46 recites, "a printhead carriage for carrying a printhead; a perforator carriage for carrying a perforation forming mechanism; and an isolation damper coupling said printhead carriage to said perforator carriage.

The Examiner asserts that Petersen, et al. discloses everything in claim 46 except for the perforation forming mechanism, for which the Examiner relies on Schmitt. In particular, for example, the Examiner asserts that Petersen, et al. discloses the recited "isolation damper coupling said printhead carriage to said perforator carriage", relying on Petersen, et al. Figs. 2-4 and column 3, lines 25-35 with respect to elements 70, 80.

As set forth above, in the context of Applicants' invention, the recited isolation damper is a device having vibration absorbing characteristics such that the perforator carriage will not transmit mechanical vibrations directly to the printhead carriage. However, Petersen, et al. discloses at column 3, lines 30-42, "The pickup arm 80 is made of a thin sheet metal having sufficient flexibility or is mounted on the posts 70 with sufficient compliance in the vertical direction to permit at least its remote end 82 to be vertically moved upon engagement with the pickup hook ramps 26, 27 previously described. The pickup arm 80 has an inclined ramp 84 which has upper and lower camming surfaces 85, 86 thereon (FIG. 5) and first and second edges 87, 88 (FIG. 10) respectively engageable with vertically extending pusher surfaces 89, 90 on the

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printer carriage and pickup hook. Pickup arm 80 also has a support flange 92 for resting on platform 29 on the pickup hook."

As further set forth in Petersen, et al. at column 3, lines 48-65 and Figs. 4-19, however, it becomes apparent that the reason for the flexibility and compliance with respect to elements 70, 80 is that of providing a spring action, and not isolation damping, i.e., vibration damping. Further, the fact that Petersen, et al. uses "thin sheet metal" for pickup arm 80 show the lack of concern for vibration, since it is known in the art that thin sheet metal would tend to transmit, not dampen, vibration.

Accordingly, it is respectfully submitted that Petersen, et al. does not disclose, teach or suggest the "isolation damper coupling said printhead carriage to said perforator carriage", as recited in claim 46. Further, Schmitt also does not disclose, teach or suggest the "isolation damper coupling said printhead carriage to said perforator carriage", nor does the Examiner assert as much. Therefore, even if Petersen, et al. and Schmitt were combined, the combination would not yield Applicants' invention as recited in claim 46.

Each of claims 47 and 49 depend directly from claim 46, and are believed allowable in view of their respective dependence from otherwise allowable base claim 46. In addition, claims 47 and 49 further and patentably define the invention over Petersen, et al. in view of Schmitt.

Therefore, it is respectfully requested that the Examiner withdraw the rejection of claims 46, 47, and 49 as being unpatentable under 35 U.S.C. 103(a) over Petersen, et al. in view of Schmitt.

Claim 50 was rejected under 35 U.S.C. §103(a) as being unpatentable over Petersen, et al. in view of Schmitt as applied to claim 46, and further in view of Engel, et al. (U.S. Patent

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No. 5,019,028). Applicants respectfully request reconsideration of the rejection of claim 50 in view of the following.

Claim 50 depends indirectly from claim 46, and is believed allowable in view of its dependence from otherwise allowable base claim 46, since Engel, et al. does not fill the deficiencies of Petersen, et al. and Schmitt with respect to claim 46.

Further, claim 50 is believed patentable in its own right.

Claim 50, as amended, recites, "The apparatus of claim 49, further comprising a perforation maintenance station including an abrasive member for sharpening said perforation device at a location outside of a perforation zone of said perforation device." (Emphasis added). Support for the amendment to claim 50 may be found, for example, at Applicants' Fig. 1 and spec. at page 7, lines 1-7.

The Examiner relies on Engel, et al. column 10, lines 15-28 for teaching a perforation maintenance station including an abrasive member for sharpening said perforation device. In contrast to claim 50 as amended, however, the sharpening mechanism of Engel, et al. is located such that the sharpening occurs in the course of the perforation operation (Engel, et al. column 10, lines 20-22), and thus sharpening is necessarily performed in the perforation zone of the Engel apparatus. Accordingly, claim 50 is believed patentable in its own right.

Therefore, it is respectfully requested that the Examiner withdraw the rejection of claim 50 as being unpatentable under 35 U.S.C. 103(a) over Petersen, et al. in view of Schmitt and further in view of Engel, et al.

Applicants believe the present application is in condition for allowance in its present form, and it is respectfully requested that the Examiner so find and issue a Notice of Allowance in due course.

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